



#### WHAT IS CARBON FOOTPRINT?

- Total amount of greenhouse gases, including carbon dioxide (CO<sub>2</sub>), generated directly and indirectly by an individual, group, event, or product.
- For most consumers in developed countries, these products and activities we can devide into four principal categories:
  - household energy use,
  - transport,
  - food,
  - and everything else, mostly the products we buy, from utensils to clothes to cars to television sets.

### WHY IS IMPORTANT TO REDUCE CO<sub>2</sub>?

- Climate Change and Global Warming: An increaseing greenhouse gas emissions, primarily carbon dioxide (CO<sub>2</sub>), is the primary event. Associated with climate change that has led to global warming
- Environmental Impact: Rising temperatures and shifting precipitation patterns are changing the growing patterns of plants and result in indigenous vegetation moving to increasingly cooler climates. Rising sea levels, due to increasing planetary temperatures, not only erode shorelines and destroy ecosystems, but coastal cities and towns could also be displaced
- Human Health: Our increased carbon footprint has the capacity to harm our health
- Wildlife: As vegetation shifts due to increasing temperatures and shifting weather patterns, wildlife that depends on it becomes threatened. For example, migratory birds arrive at their destination to find food sources such as plants bloomed too early or not at all, and melting Arctic ice destroyes hunting ground for polar bears.

# HERE ARE SOME OF THE DAILY LIFE ACTIVITIES THAT CONTRIBUTE TO CARBON FOOTPRINT:

- Transportation: Roadway transportation, personal transportation, freight transportation, and marine transportation
- Energy consumption: Over-charging electronics, leaving televisions running, using inefficient appliances, and forgetting to turn off lights
- Meat consumption: Raising livestock for the grocery store releases about a third of the industry's
  GHG emissions
- Atc...

#### THERE'S NO APPLE LIKE AN APLLE

- Let's compare the carbon footprint of an apple produced locally in the Czech Republic to an apple transported from New Zealand.
  - According to the study of Our World in Data, the carbon footprint of an apple grown in the Czech Republic is around 0.2 kg CO<sub>2</sub> per kilogram of apples, while the carbon footprint of an apple grown in New Zealand and transported to the Czech Republic is around 0.8 kg CO<sub>2</sub> per kilogram of apples.
  - This is because the transportation of the apple from New Zealand to the Czech Republic requires a significant amount of energy and resources, which contributes to greenhouse gas emissions





### HERE ARE SOME WAYS HOW TO REDUCE OUR CARBON FOOTPRINT:

- Reduce energy consumption: Turn off lights and electronics when not in use, use energy-efficient appliances, and insulate your home to reduce heating and cooling needs
- Reduce transportation emissions: Use public transportation, carpool, bike, or walk instead of driving alone
- Reduce meat consumption: Livestock production is responsible for a significant amount of greenhouse gas emissions. Reducing meat consumption or switching to plant-based diets can help reduce carbon footprint
- Reduce waste: Reduce, reuse, and recycle. Composting food waste can also help reduce carbon footprint

#### SOURCES

- https://ourworldindata.org/
- https://ams-iac.com/how-to-reduce-your-carbon-footprint/
- <a href="https://onapples.com/ontario-apple-varieties">https://onapples.com/ontario-apple-varieties</a>
- https://www.amsoft.cz/cintiq-pro-27/getting-started/apple-logo/
- Facts on Overpopulation and Deforestation in the Amazon Basin (sciencing.com)
- <a href="https://www.nationalgeographic.com/environment/article/what-is-a-carbon-footprint-how-to-measure-yours">https://www.nationalgeographic.com/environment/article/what-is-a-carbon-footprint-how-to-measure-yours</a>

## CARBON FOOTPRINT OF TRAVEL PER KILOMETER

Domestic flight	246 g
Diesel car	171 g
Petrol car	170 g
Short-haul flight	151 g
Long-haul flight	I 48 g
Motorbike	114 g
Bus (average)	97 g
Plug-in hybrid	68 g
Electric car	47 g
National rail	35 g
Tram	29 g
Underground	28 g

The carbon footprint of travel is measured in grams of carbon dioxide-equivalents per passenger kilometer. This includes the impact of increased warming from aviation emissions at altitude.